What is claimed is:

1. A manually actuated input device for commanding machine- and/or computer-assisted control operations for kinematic motions of a real or virtual multipart object, including a force/moment sensor with which linear displacements in the form of translational movements in the direction of three axes (X, Y, Z), each standing perpendicular on the other, of a three-dimensional rectangular system of coordinates and/or rotational excursions in the form of rotational motions (A, B, C) about these three axes are sensed and converted into commanded motions of the object to be controlled **wherein** the commanded individual linear displacements and/or rotational excursions of the force/moment sensor are assigned specific kinematic motion patterns of parts of the real or virtual object thereby permitting manipulation or animation thereof as a transforming interlink and in that the commanded velocities of the corresponding individual linear displacements and/or rotational excursions of the force/moment sensor are additionally weightable as a kinematic interlink assignment.

2. The input device as set forth in claim 1 **wherein** for six degrees of freedom there are twelve major directions of motion and thus a total of twelve kinematic interlinking assignments of the parts of the object which are additionally sub-related by rates and/or positions so that for e.g. a total of two rates and/or positions 24 kinematic interlinking assignments of the parts of the object are possible, and, e.g. for a total of three rates and/or positions 36 kinematic interlinking assignments of the parts of the object are possible

3. The input device as set forth in claim 1 **wherein**, in addition to controlling the motions of parts of said object, tones and/or music of any kind are assigned to the commanded individual linear displacements and/or rotational excursions

of the force/moment sensor in any kind of combination and/or variation.

4. The input device as set forth in claim 2 **wherein**, in addition to controlling the motions of parts of said object, tones and/or music of any kind are assigned to the commanded individual linear displacements and/or rotational excursions of the force/moment sensor in any kind of combination and/or variation.

5. The input device as set forth in claim 3 **wherein** higher velocities of linear displacements and/or rotational excursions of the force/moment sensor are assigned sounding and/or changing tones such as e.g. walking noises or music sequences.

6. The input device as set forth in claim 4 **wherein** higher velocities of linear displacements and/or rotational excursions of the force/moment sensor are assigned sounding and/or changing tones such as e.g. walking noises or music sequences.

7. The input device as set forth claim 1 **wherein** an optoelectronic assembly for simulataneously entering six components (X, Y, Z; A, B, C) in or about said three axes (X, Y, Z) of a rectangular three-dimensional system of coordinates is provided as said force/moment sensor, in which each of at least six light-emitting means (2-1 to 2-6) mounted equally angularly spaced from the other, each including an inputting, fixedly arranged slotted aperture (3-1 to 3-6), is arranged relative to each position-sensing detectors (4-1 to 4-6) oriented by its detector axis perpendicular to said slot directly of each assgined slotted apertures (3-1 to 3-6) so that said light-emitting means (2-1 to 2-6) including said assigned slotted apertures (3-1 to 3-6) and said position-sensing detectors (4-1 to 4-6) are moveable relative to each other.

8. The input device as set forth in claim 7 **wherein** six light-emitting means (2-1 to 2-6) each including a slotted aperture (3-1 to 3-6) at a fixed input spacing are provided stationary, each adjacent slotted aperture is configured offset 90° to the other relative to their major direction of extension and six position-sensing detectors (4-1 to 4-6) movable mutually relative to said slotted apertures (3-1 to 3-6) are provided, the detector axis of each of which is oriented perpendicular to the slot direction of each assigned slotted aperture (3-1 to 3-6).

9. The input device as set forth in claim 7 **wherein** each light-emitting means (2-1 to 2-6) assigned to each position-sensing detector (4-1 to 4-6) is signalled by an electronic closed loop controller which maintains the sum of the two currents flowing in the corresponding position-sensing detector (4-1 to 4-6) constant to a value which is the same for all of said at least six systems in controlling the beam intensity of said light-emitting means (2-1 to 2-6).

10. The input device as set forth in claim 8 **wherein** each light-emitting means (2-1 to 2-6) assigned to each position-sensing detector (4-1 to 4-6) is signalled by an electronic closed loop controller which maintains the sum of the two currents flowing in the corresponding position-sensing detector (4-1 to 4-6) constant to a value which is the same for all of said at least six systems in controlling the beam intensity of said light-emitting means (2-1 to 2-6).

11. The input device as set forth in claim 7 **wherein** said position-sensing detectors (4-1 to 4-6) are arranged correspondingly oriented on the inner side of a second cylindrical ring (5) fixedly secured to the inner side of a control cap 8 configurable as a handle and which is moveable via spring elements (7) provided between said second ring (5) and a supporting means (6) mounting in the middle said

light-emitting means (2-1 to 2-6) relative to the stationary input device of said at least six light-emitting means (2-1 to 2-6) and said at least six slotted apertures (3-1 to 3-6), each assigned thereto, so that said second ring (5) is always returned to its starting position.

12. The input device as set forth in claim 8 **wherein** said position-sensing detectors (4-1 to 4-6) are arranged correspondingly oriented on the inner side of a second cylindrical ring (5) fixedly secured to the inner side of a control cap 8 configurable as a handle and which is moveable via spring elements (7) provided between said second ring (5) and a supporting means (6) mounting in the middle said light-emitting means (2-1 to 2-6) relative to the stationary input device of said at least six light-emitting means (2-1 to 2-6) and said at least six slotted apertures (3-1 to 3-6), each assigned thereto, so that said second ring (5) is always returned to its starting position.

13. The input device as set forth in claim 9 **wherein** said position-sensing detectors (4-1 to 4-6) are arranged correspondingly oriented on the inner side of a second cylindrical ring (5) fixedly secured to the inner side of a control cap 8 configurable as a handle and which is moveable via spring elements (7) provided between said second ring (5) and a supporting means (6) mounting in the middle said light-emitting means (2-1 to 2-6) relative to the stationary input device of said at least six light-emitting means (2-1 to 2-6) and said at least six slotted apertures (3-1 to 3-6), each assigned thereto, so that said second ring (5) is always returned to its starting position.

14. The input device as set forth in claim 7 **wherein** said at least six light-emitting means (2-1 to 2-6) are accommodated in a supporting means (6) to which a first cylindrical ring (3) is fixedly secured in which slotted apertures (3-1 to 3-6) are provided in the same angular spacing as that of said

light-emitting means (2-1 to 2-6) mounted by said supporting means (6) and opposite to the latter are alternatingly each offset 90° to the other relative to their major direction of extension.

15. The input device as set forth in claim 8 **wherein** said at least six light-emitting means (2-1 to 2-6) are accommodated in a supporting means (6) to which a first cylindrical ring (3) is fixedly secured in which slotted apertures (3-1 to 3-6) are provided in the same angular spacing as that of said light-emitting means (2-1 to 2-6) mounted by said supporting means (6) and opposite to the latter are alternatingly each offset 90° to the other relative to their major direction of extension.

16. The input device as set forth in claim 9 **wherein** said at least six light-emitting means (2-1 to 2-6) are accommodated in a supporting means (6) to which a first cylindrical ring (3) is fixedly secured in which slotted apertures (3-1 to 3-6) are provided in the same angular spacing as that of said light-emitting means (2-1 to 2-6) mounted by said supporting means (6) and opposite to the latter are alternatingly each offset 90° to the other relative to their major direction of extension.

17. The input device as set forth in claim 10 **wherein** said at least six light-emitting means (2-1 to 2-6) are accommodated in a supporting means (6) to which a first cylindrical ring (3) is fixedly secured in which slotted apertures (3-1 to 3-6) are provided in the same angular spacing as that of said light-emitting means (2-1 to 2-6) mounted by said supporting means (6) and opposite to the latter are alternatingly each offset 90° to the other relative to their major direction of extension.

18. The input device as set forth in claim 11 **wherein** said at least six light-emitting means (2-1 to 2-6) are

accommodated in a supporting means (6) to which a first cylindrical ring (3) is fixedly secured in which slotted apertures (3-1 to 3-6) are provided in the same angular spacing as that of said light-emitting means (2-1 to 2-6) mounted by said supporting means (6) and opposite to the latter are alternatingly each offset 90° to the other relative to their major direction of extension.

19. Use of the input device as set forth in claim 1 for machine- or computer-controlled objects simulating objects or animate beings moving inherently and/or totally, whereby parts of the object or animate being, e.g. the arms, legs, trunk and head of an animate being, simulated in each case, form the parts of the object to be controlled as regards their kinematics.

20. Use of the input device as set forth in claim 2 for machine- or computer-controlled objects simulating objects or animate beings moving inherently and/or totally, whereby parts of the object or animate being, e.g. the arms, legs, trunk and head of an animate being, simulated in each case, form the parts of the object to be controlled as regards their kinematics.

21. Use of the input device as set forth in claim 3 for machine- or computer-controlled objects simulating objects or animate beings moving inherently and/or totally, whereby parts of the object or animate being, e.g. the arms, legs, trunk and head of an animate being, simulated in each case, form the parts of the object to be controlled as regards their kinematics.

22. Use of the input device as set forth in claim 4 for machine- or computer-controlled objects simulating objects or animate beings moving inherently and/or totally, whereby parts of the object or animate being, e.g. the arms, legs, trunk and head of an animate being, simulated in each case,

form the parts of the object to be controlled as regards their kinematics.

23. Use as set forth in claim 19 for computer-controlled animation operations of the objects.

24, Use as set forth in claim 20 for computer-controlled animation operations of the objects.

25. Use as set forth in claim 21 for computer-controlled animation operations of the objects.

26. Use as set forth in claim 22 for computer-controlled animation operations of the objects.

Add A1